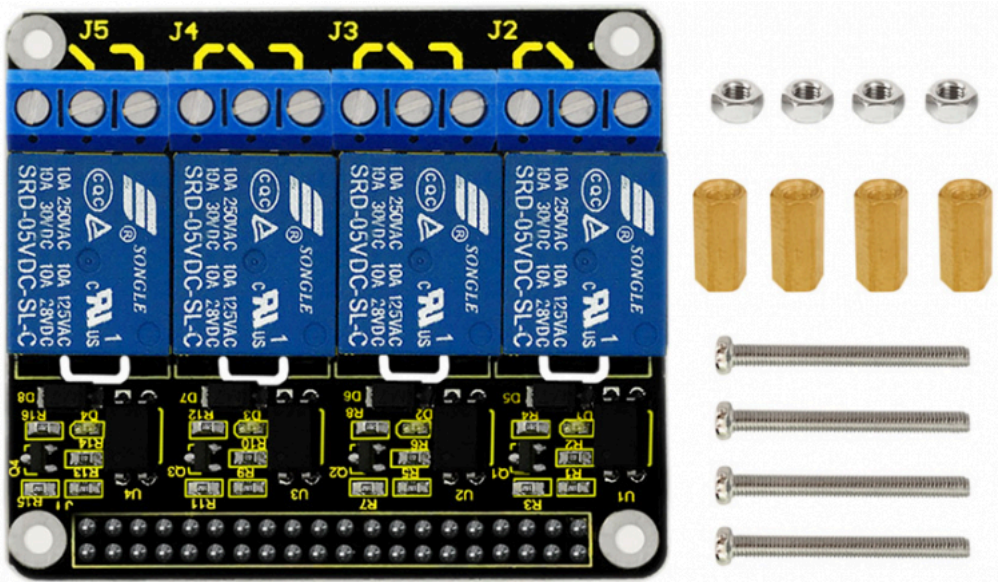
KS0212 keyestudio RPI 4-channel Relay Shield

Contents

Introduction

This shield uses SONGLE relay, providing 4-channel input and output. The relays are isolated in the PCB. All the channels can control up to 24V DC or 250V AC on 10 A. It allows you to control high power components like lights and motors via Raspberry Pi 3. Just plug it directly into your pi with 5 V. You will find a LED indicates the status of the relays.
We will provide installation package, source code and quickstart guide PDF. We will teach you step by step, so don't worry!



Specification

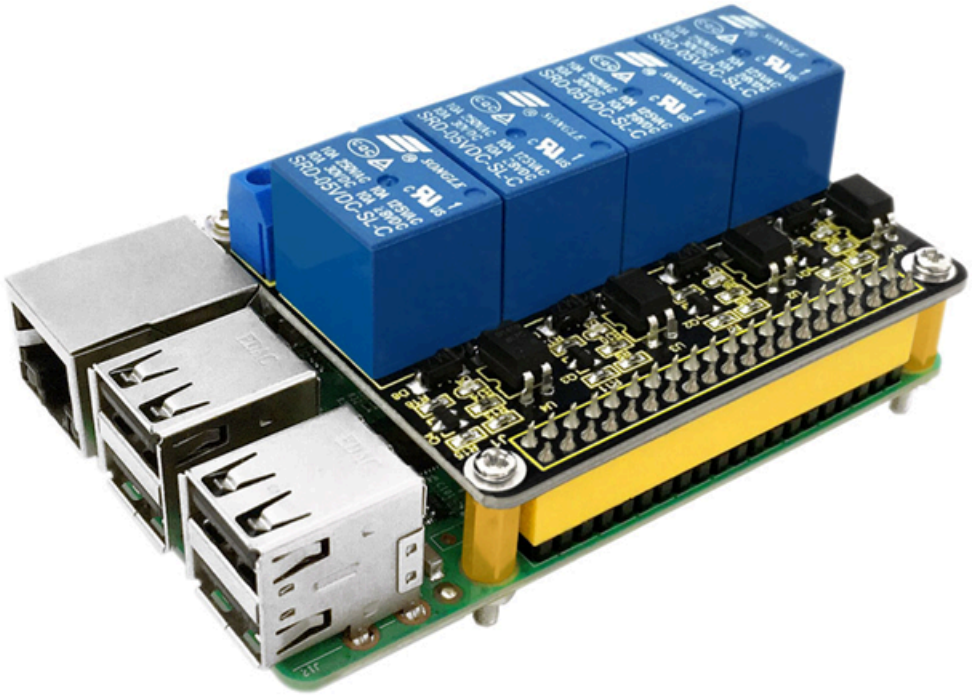
- Control Signal: TTL Level
- Rated Load：

```
10A 250VAC

10A 125VAC

10A 30VDC

10A 28VDC
```

- Rated Current: 10A(NO) 5A(NC)
- Max Switching Voltage: 250VAC 30VDC
- Contact Time: under 10ms

Connection Diagram

The shield is on the top of Raspberry Pi board and fixed with copper pillar and screws as shown in below figure.

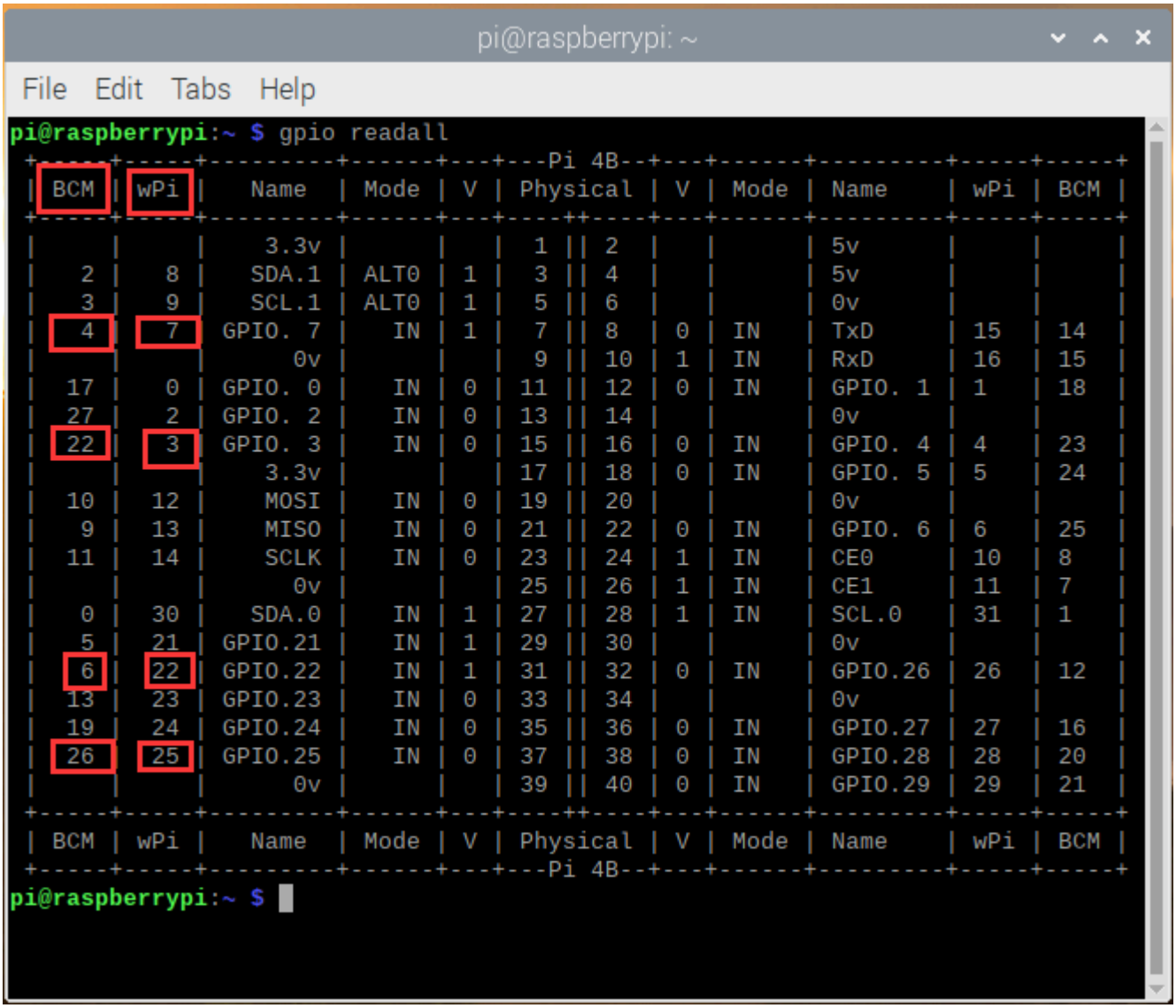


Sample Code

```
#include <wiringPi.h>
int main()
{
```

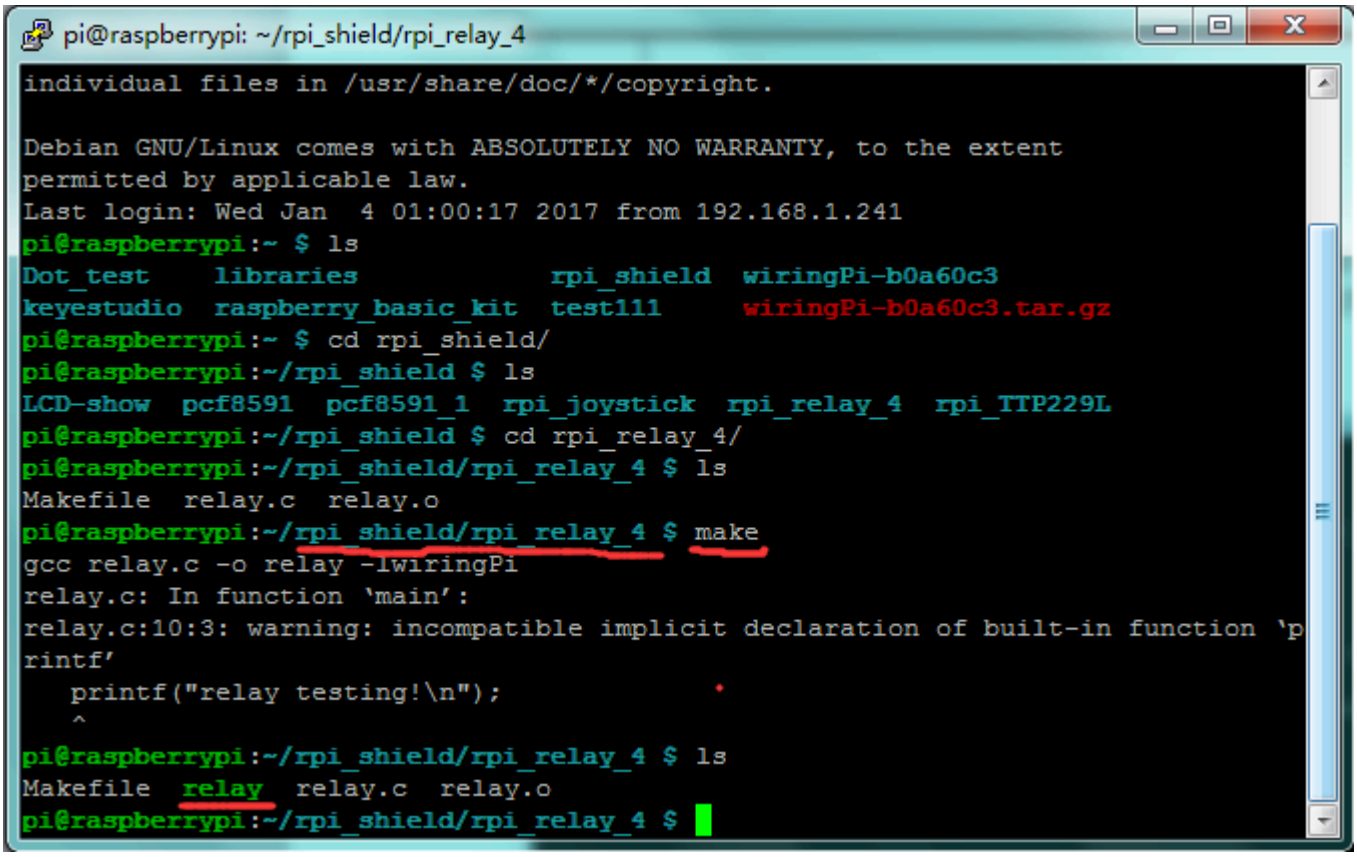
```
    wiringPiSetup();

    pinMode(7,OUTPUT);
    pinMode(3,OUTPUT);
    pinMode(22,OUTPUT);
    pinMode(25,OUTPUT);
    printf("relay testing!\n");
    while(1)
    {
          digitalWrite(7,HIGH);
          delay(500);
          digitalWrite(7,LOW);
          digitalWrite(3,HIGH);
          delay(500);
          digitalWrite(3,LOW);
          digitalWrite(22,HIGH);
          delay(500);
          digitalWrite(22,LOW);
          digitalWrite(25,HIGH);
          delay(500);
          digitalWrite(25,LOW);
          delay(500);
    }
}
```

Note: the test code we use is file wiringPi.h and the port is wPi(7 3 22 25 port).
If you test with other code like Python code, you should use BCM port and set the corresponding port 4 22 6 26.

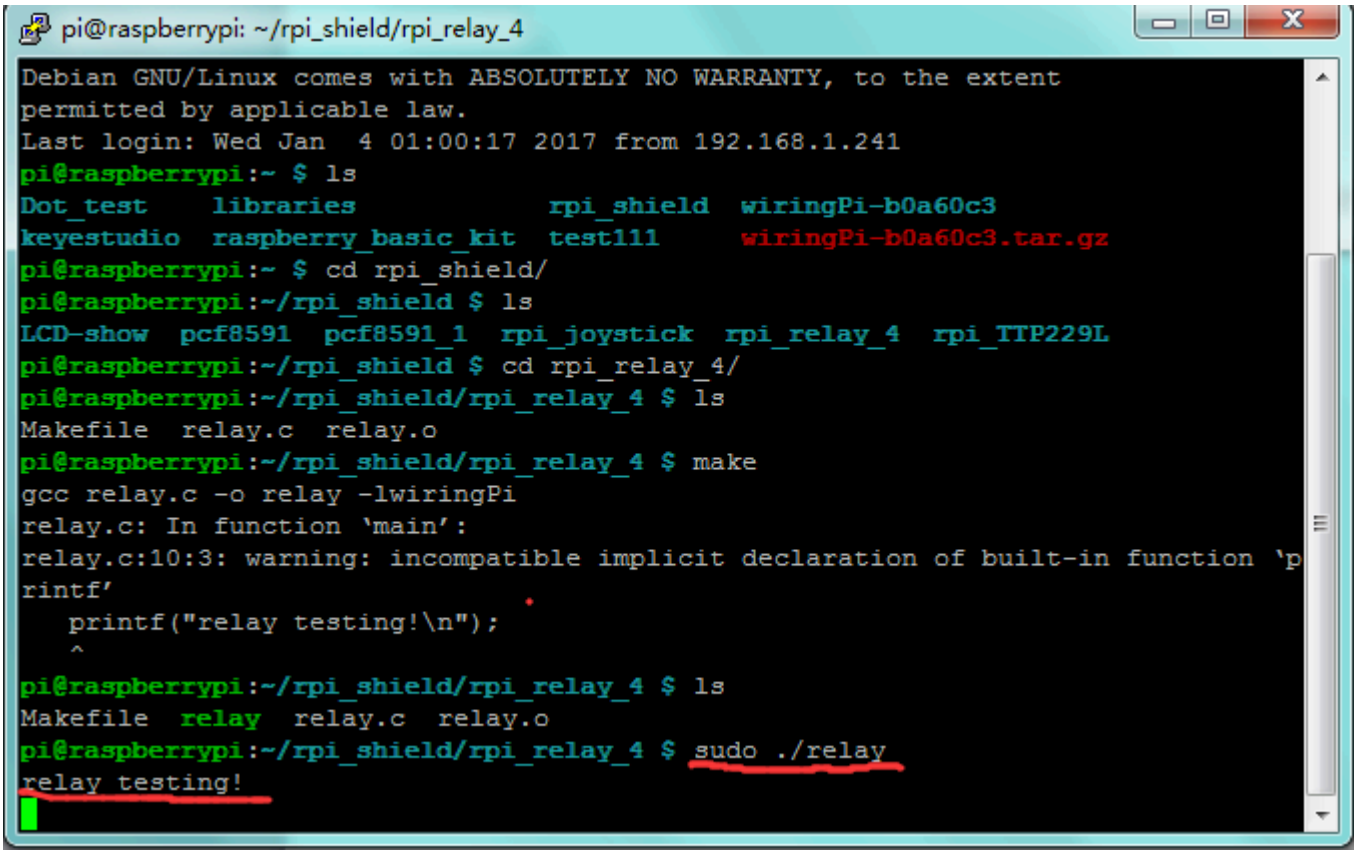


Program Writing

1. Copy the rpi_relay_4 file and put it into the rpi_shield file through winSCP. Next, type this command: **cd rpi_relay_4** to go inside the rpi_relay_4 folder. Then type this command: **make** to make an executable file relay as shown in below figure.



2. Finally type this: **sudo ./relay** to launch the program.



Result

Relays are turned on in sequence and then after a short pause turned off in sequence. Then use **Ctrl+C** to quit the program.

Resources

https://fs.keyestudio.com/KS0212

Get One Now

- Official website (https://www.keyestudio.com/keyestudio-rpi-4channel-relay-5v-shield-for-raspberry-pi-ce-certification-p0475-p0475.html)
- **Shop on aliexpress** (https://www.aliexpress.com/store/product/Keyestudio-RPI-4channel-Relay-5V-Shield-for-Raspberry-Pi/1452162_32780156359.html?spm=2114.12010612.8148356.17.6e9660ffsewRl7)